



Assessing Causality in a Complex Security Environment

By Andrew L. Stigler

In May 2014, I was moderating a Naval War College seminar on the topic of U.S. policy in the Middle East. The discussion involved President George W. Bush's statement that a democratic Iraq would serve as a "beacon of democracy" in the Middle East, leading nations and peoples in that region to reappraise their systems of government and, perhaps, initiate democracy movements of their own. A student raised his hand.

"Well, we know it worked," said a Navy captain. I asked how. "The Arab

Spring. That shows that the image of an Iraqi woman holding up her purple fingertip after having voted, it resonated with the entire region. I mean, look what happened."

I offered counterarguments. Did that image have the same meaning to other audiences that it did to us? How many people in the region saw the image? Was that image counteracted by distrust of America's motives in Iraq? The student shook his head. "We know it worked," he said.

To my understanding, methodological issues receive little coverage in the professional military education (PME) system. There are many excellent reasons for this, one of which is that the master's degree that students receive is not in political science, but covers a host of critical strategic issues and other topics. But PME is also the last opportunity to address, in an educational setting, subjects in the social sciences that could genuinely benefit those students.

Causality is one of these critical issues. Causality has many definitions, but we might profitably see it as the search for reasons as to why a particular event occurred.

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Causality is certainly studied in the military in the physical sense: calculating a jet engine's thrust or managing the operation of a nuclear reactor, for example. But officers preparing for greater responsibilities, including understanding contingencies in the international arena, are forced—whether they know it or not—to address causality in the strategic arena.

A causal relationship is a way of describing how a cause and effect interact. A change in the cause leads to a change in the effect (at least some of the time), or there is no cause and effect relationship.¹ A simple representation would be *cause* → *effect*.

Often a mechanism, seen or unseen, is involved. When a car strikes a light pole and the light pole falls down, we see the causal relationship. Other physical causal relationships are unseen, such as gravity causing an apple to fall from a tree.

Causation and Its Pitfalls

Efforts to simplify complex causal relations in the international arena account for much of the work in political science, which seeks to illuminate issues of strategic significance. Consider the subject of deterrence. In one of his most prominent early works, John Mearsheimer offered a relatively simple theory of what leads to a stable deterrent relationship between two states. Mearsheimer argued that when State A fields a deterrent capability sufficient to defeat State B, State B will be deterred from attacking State A.² The theory is a reasonable one on its face (though we might think of exceptions, such as Georgia's decision to attack Russia in 2008). The causal relationship of Mearsheimer's theory might be stated as follows: *dominant conventional military capability vs. B* → *stable deterrence vs. B*.

Stephen Van Evera warns against a number of potential errors in determining causation.³ The most important of these is *spurious causation*. This occurs when the incidences of both A and B are reliant on some other factor, rather than one causing the other. In this case, A and B are not causally related, but instead both rely on a third cause: *C* → *both A and B*.

An example of spurious causation would be arguing that the crash of an F-16 was caused by the ejection of the pilot. Since ejections are often closely correlated with fighter airplane crashes, an investigator (albeit a poorly informed one) with no understanding of the subject might be forgiven if he speculated that it was the ejection that primarily caused the crash. This is possible, of course; in the absence of mechanical problems, a decision by the pilot to eject would cause the plane to crash. However, it is far more likely that the two events, A (ejection of the pilot) and B (crash of the airplane), are both caused by a third event, C (serious mechanical issues with the plane).

The risk of arriving at spurious causal implications in international security is considerable. What may appear a cause may in fact be the effect of a larger cause, just as with the example of the ejecting pilot. The prior reference to the Arab Spring example is most likely this sort of spurious causation. Would the Arab Spring have occurred if the United States had never invaded Iraq, or even Afghanistan? Very possibly so; though it is difficult to prove a negative, I am aware of no instances of those rebelling in Tunisia, Egypt, Syria, or elsewhere who cited the recent histories of Iraq and Afghanistan as their motives. If this line of reasoning is correct, then the assertion that the Arab Spring was caused by evolving democracies in Afghanistan and Iraq is an example of spurious causation (and possibly biased analysis to boot).

A new concept that may have considerable application to the strategic realm is the idea of *multidirectional causality*. Many of the simplified concepts of causality were designed for the physical realm, where causation can be simplified with considerable accuracy in many environments. Gravity causes a stone thrown into the air to fall back to Earth; no other forces are needed to explain this result, and this outcome is easily explained by reference to a single causal factor.

In international environments, however, this is only rarely the case. In fact, we could say an “effect” has an impact on the “cause” all the time in strategic interactions. Returning to the deterrent

relationship, suppose again that A has created a stable deterrent relationship with B. This stable deterrent relationship—and, by implication, the decision by B to be deterred—could then have an impact on State A. State A might believe that the stability of the relationship, and the lack of confrontational steps from State B, would allow State A to reduce its military expenditures while still remaining safe.

State A could decide that State B is a candidate for an alliance, or initiate some other change in the relationship; these are only a few of the many impacts that State B could have on State A by engaging in a stable “deterred” relationship with State A. In this respect, the effect has become a cause. Other states—C, D, E, and F—may play a role in determining whether the relationship between A and B is stable, and those states could add further causal complexity. In this sense, with each state being a cause and effect in multiple relationships, and often both cause and effect at once, the concept of multidirectional causality becomes a useful (though daunting) heuristic for illuminating these interactions.

Causal relationships in the strategic realm can be incredibly complex. At the same time, attempting to understand them is necessary to make sense of history. John Lewis Gaddis, for example, attributes the end of the Cold War to two primary causes: the U.S. conventional arms buildup and firm policies of President Ronald Reagan, and the willingness of his Soviet counterpart, Mikhail Gorbachev, to reassess the Soviet Union's geostrategic position and to act boldly based on that reassessment.⁴ Many would agree that these factors played a role, but assessing the end of such a dispersed and longstanding rivalry is a most complicated task, even with the advantage of hindsight and vast knowledge of the subject, as Gaddis has relating to the Cold War.

Such complex causal assessments are exactly what we are asking military officers to make when they offer their insights into strategic guidance, contingency planning, and the like. When we ask officers to assess the question “What is the likely threat posed by China in the

near future?” it is precisely this complex causal environment we are asking them to attempt to understand. Assessing intentions is difficult in and of itself, but suppose we assume that China seeks to expand its sphere of influence and control over natural resources. To be sure, the question “What will China do?” is a critical one. But even if we could assess that question accurately, we could not gauge the strategic importance of whatever actions we believe China would undertake without also asking, “What impact will those actions have?” Here, we are assessing causality—the likely effect that specific Chinese actions could have.

Five Steps for Successful Assessment

The Arab Spring example illustrates two issues related to causality that are important for military officers to understand. First, anything we study in international security—an event in history, current crisis, speculative future engagement—is almost always more complex than it seems at first glance. Understanding complex national security events requires simplification, and that simplification has become a routine part of how we assess a strategic situation. Simplification is, in fact, necessary to make almost any sort of command decision. But when the stakes are significant and the time is available, attempting to parse out the causal complexity of a situation is essential.

Second, it is important to be aware of the need to be prepared to change our minds. If we are not open to reassessment of a causal relationship, we run the risk of missing an opportunity to revise an incorrect assessment. General Douglas MacArthur did not believe his advance to the Yalu River would lead to Chinese involvement in the war because he was confident that the Chinese could only manage to send 50,000 to 60,000 troops across the Yalu, a number that would be no match for the United Nations force that was advancing north. MacArthur’s inability to remain open to alternative explanations regarding China’s likely involvement was at least partly due to the fact he received few unfiltered

intelligence reports. MacArthur had a “determination to surround himself with people who would not disturb the dream world of self-worship in which he so often chose to live.”⁵

Assess the Full Spectrum of Causal Factors Involved. Since strategic situations are so complex, it is easy to seize upon the first few causal factors that we believe are most important and stop our analysis at this point. In the spirit of Atul Gawande’s *The Checklist Manifesto*,⁶ below is a list of categories of possible causal factors that could merit consideration:

- actors involved—primary and secondary, possible future actors
- policy choices of relevant actors/governance/political factors
- leaders/advisors/influential individuals
- military factors
- social/cultural/historical considerations
- normative factors/international community
- strategic trends
- regional dynamics
- technology/changes in technology.

The term *normative factors* is a suggestion that we might consider how the relevance or irrelevance of international norms (customs, standards of behavior, and the like) might play on a certain causal analysis. For example, the importance of the sanctity of internationally recognized borders plays a major role in interstate behavior, even though we can point to instances of recent violations (Crimea, for example). The fact that a norm is sometimes violated does not mean it does not have an impact. In the United States, banks are occasionally robbed, but most people know that bank-robbing is illegal, and that belief affects the behavior of most people.

State Your Understanding of the Causal Relationship as Concretely as Possible. By rendering a complex causal relationship into something close to its true complexity, we may stumble on—or, more likely, force ourselves to recognize—a causal link that seems dubious on further analysis.

Consider this excerpt from a National Intelligence Estimate (NIE) that was read to President John F. Kennedy days before he decided to proceed with the Bay of Pigs operation in 1961. This NIE was seen as supporting the expected causal relationship that the invasion would spark an anti-Fidel Castro popular revolt. Of course, the Bay of Pigs invasion was a disastrous failure, one that humiliated the new President. The NIE went as follows:

The great mass of Cuban people believe the hour of decision is at hand. . . . They expect an invasion to take place before mid-April 1961 and place great reliance on it. The Castro regime is steadily losing popularity. . . . housewives and servants must stand in line for hours to obtain such necessities as soap and lard. . . . Church attendance is at an all-time high as a demonstration of opposition to the government. . . . It is generally believed that the Cuban Army has been successfully penetrated by opposition groups and that it will not fight in the event of a showdown.⁷

Though much of this is simply questionable intelligence, the excerpt also offers evidence of questionable causal relationships, as this NIE was evaluating the possibility of an anti-Castro uprising. What is the causal connection between soap lines and a readiness to spontaneously revolt? Even if a revolt occurred, would it occur quickly enough? How could we predict these critical elements of a plan? When does dissatisfaction lead to resistance? What are the obstacles to mobilizing a revolt? By asking these and other questions in an attempt to make the predicted causal relationship as concrete as possible, we increase the likelihood of identifying aspects of a causal relationship that merit further consideration.

Stay Alert to the Length of the Causal Chain. When we consider a causal impact such as “U.S. military policy A will have causal result B,” we must remain alert to each step in the causal chain. The more distant the event is from the cause being investigated, the more likely it is that other causal factors will have an opportunity to affect the event we are attempting to explain.



Eight hundred female strikers for peace on 47th Street near United Nations Building in New York, 1962 (Library of Congress/Phil Stanziola)

There are two general types of “links” in the causal chain that can be considered. The first is *events*. The larger the number of external events between the cause and effect we are interested in explaining, the greater the possibility that other factors play a role in the explanation of the event in question.

The second is *time*. Even absent events that raise the possibility that other causal factors are at work, time itself can add to our skepticism that a causal relationship exists, or at least may cause us to question the strength of the suspected cause. Events in the strategic realm are not always instantaneous to be sure. But a significant span of time between a cause and effect is reason to be skeptical.

For example, it was argued in the 1990s that North Atlantic Treaty Organization (NATO) expansion could raise profound security concerns for Russia.⁸ Two decades later, in response to fears that Ukraine was becoming too close to the West, Russia invaded Crimea, and Ukraine continues to be a focus of diplomatic friction between a former superpower and the West.

Did NATO expansion cause the current impasse? It is worthwhile to keep in mind that both a considerable span of time and range of actions occurred between the two events. The 2008 war between Georgia and Russia, for example, may have played a significant role in Vladimir Putin’s thinking—offering him

evidence that the West would not take significant action to defend a non-NATO member that bordered Russia. Decisions related to the extent of NATO’s expansion could have played a role as well—for example, could NATO have halted the expansion at an earlier stage? If the answer is yes, then we might be more skeptical that the earlier decision to expand NATO led to the current situation in 2014. These are the sorts of alternate explanations that would merit consideration as we evaluate a causal relationship.

Realize Causal Comparisons with Past Events Are Always More Complicated Than They First Seem. In March 2014, both Zbigniew Brzezinski and Madeleine Albright offered interviews in which they attempted to suggest possible causal outcomes in the Crimean situation by making historical references. Brzezinski recommended threatening Russia with “very serious” consequences “because, otherwise, some years from now, we will be regretting failure to act the way we regretted the failure to act after Munich in 1938 and 1939, and we know what followed.”⁹ Similarly, Albright offered, “I think the problem of Munich was that the United States was not paying attention.”¹⁰

Such efforts to predict causal outcomes for present situations based on historical events always gloss over a vast array of causal complexities. Also keep in mind that we are often still puzzling over the causal explanation of the *original* historical event. The outbreak of World War I is now a century old, and there are still potent debates over the role of the cult of the offensive and other factors.¹¹ And we know even less about the causal factors at work in current geostrategic situations than we do about historical events.

Below is a partial list of “categories of difference” that might be kept in mind as historical analogies are being compared. In effect, we might ask if the historical event and current situation differ in terms of:

- geostrategic environment
- leadership
- regional actors
- cultural and social considerations

- motivation and commitment (short and long term)
- level of threat.

Beware of Mirror-Imaging. Mirror-imaging refers to the danger of assuming that other individuals have the same, or very similar, desires and perceptions that we have. Just as a mirror reflects us, mirror-imaging suggests the danger of projecting our strategic preferences onto another actor. For example, in the prelude to the 1973 war between Israel and Egypt, Israeli intelligence delayed mobilization in part because there was an assumption that Egypt would not attack until its air defense problem had been solved—because Israeli leaders would have been restrained from attacking, in their opinion, had they faced such a situation.¹²

In this sense, there may be a great difference between how an American official would react to a particular policy and how other individuals and other nations might react in the same situation. In assessing the causal implications of a policy, a strategy, or a particular move by us or an adversary, beware of assuming that the adversary reacts as we would or that the measures our adversary is taking are motivated in the same way that ours would be if we had taken such measures.

The earlier reference to the idea that a liberated Iraq could be a “beacon of democracy” may serve as an example of mirror imaging. The “beacon” concept suggests the following assumptions:

- Middle Eastern populations are unhappy with their governments because they are not democratic.
- The same populations read media accounts to learn about alternatives.
- When they decide on which political changes to endorse in their own countries, they do so after being significantly influenced by events in other countries.
- They emphasize the positive and discount the negative news coming out of Iraq.

Toward a More Complex Future?

As difficult as it is to engage in causal prediction and causal assessment in the

present, there are reasons to wonder if it will become still more complex in the future. U.S. national security policy continues to assess counterterrorism as a major focus in the decade-plus after 9/11, and this focus raises additional potential for causal complexity.

A major reason for this is the role of individuals. Terrorism is a threat posed by small groups, many (but not all) of which are not dependent on outside actors for direct support or guidance. As such, these groups are able to choose actions while being unencumbered by the institutional bureaucracy that could have a stabilizing effect on state government policies. This increases the complexity of causal assessment and prediction since it increases the fluidity of decisionmaking on the part of these (relatively) small organizations.

Furthermore, predicting social movements—especially social movements fueled by rapid communications technology and social media—is a complicated task. Consider the comments of Director of National Intelligence James Clapper on the subject of predicting the Arab Spring. Clapper spoke positively about the ability of the U.S. Intelligence Community to track social unrest in general. But he added, “Specific triggers for how and when instability would lead to the collapse of various regimes cannot always be known and predicted. . . . We are not clairvoyant.”¹³

Nor can we be. But being alert to the causal complexity of the national security environment is a first step, and an important one. Leaving causal assumptions unstated raises the risk of taking action in the strategic realm that is founded on inaccurate expectations of causal relationships. Exploring potential vulnerabilities in our causal reasoning is by no means a guaranteed bulwark against error, but the complexity of today’s strategic environment demands it. JFQ

Notes

¹ Steven Sloman, *Causal Models: How People Think About the World and Its Alternatives* (Oxford: Oxford University Press, 2005), 21–22.

² John J. Mearsheimer, *Conventional Deter-*

rence (New York: Cornell University Press, 1983).

³ Stephen Van Evera, *Guide to Methods for Students of Political Science* (New York: Cornell University Press, 1997), 8.

⁴ John Lewis Gaddis, *We Now Know: Rethinking Cold War History* (New York: Clarendon Press, 1997).

⁵ William Stueck, *The Korean War: An International History* (Princeton: Princeton University Press, 1995), 107, 112.

⁶ Atul Gawande, *The Checklist Manifesto: How to Get Things Right* (New York: Picador, 2009).

⁷ Richard Reeves, *President Kennedy: Profile of Power* (New York: Simon & Schuster, 1993), 80–81.

⁸ For an early article in the North Atlantic Treaty Organization expansion debate, see Ronald D. Asmus, Richard L. Kugler, and F. Stephen Larrabee, “Building a New NATO,” *Foreign Affairs* (September/October 1993).

⁹ Fareed Zakaria, “Ukrainians Reacting to Russia’s Military Movement in Crimea,” *CNN.com*, March 2, 2014, available at <<http://transcripts.cnn.com/TRANSCRIPTS/1403/02/fzgps.01.html>>.

¹⁰ *Ibid.*

¹¹ Kier A. Lieber, “The New History of World War I and What It Means for International Relations Theory,” *International Security* 32, no. 2 (Fall 2007).

¹² Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Vintage Books, 1991), 114–117.

¹³ “U.S. Intelligence Official Acknowledges Missed Arab Spring Signs,” *Los Angeles Times*, July 19, 2012.